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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: **10/574,112**
Filing Date: March 31, 2006
Applicant: Masashi MORI et al.
Group Art Unit: Unknown
Examiner: Unknown
Title: DNA FRAGMENT, METHOD FOR PRODUCING
TRANSFORMANT FOR PROTEIN PRODUCTION AND
UTILIZATION THEREOF
Attorney Docket: 12480-000176/US

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314
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July 20, 2006

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. **LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION**

The patents, publications and other information submitted for consideration by the Office (except unpublished U.S. patent applications) are listed on Form PTO-1449 attached hereto.

II. **COPIES**

A. ☐ Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office; (iii) for each cited pending unpublished U.S. application listed below in Section IV, the application specification including the claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B. ☐ Any patents, publications or other information which are listed on Form PTO-1449 or on the copies of Form PTO-892, but which are not enclosed herewith,

were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. ☒ Because the present application was/is being filed after June 30, 2003, no copies of the U.S. patents or U.S. patent application publications which are listed on the attached Form PTO-1449 are enclosed pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i). Any foreign patent documents or non-patent literature listed on the attached Form PTO-1449 are enclosed herewith.

D. ☐ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search Report are listed on the attached Form PTO-1449 for consideration by the Examiner and for listing on any patent resulting from this application. Since the International Search Report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g))

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. ☒ Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. ☒ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. ☒ See the attached foreign patent office communication from counterpart foreign applications: JP 2003-350091 and JP 2004-056912 for a concise explanation of the relevance of "A specific cis-hairpin ribozyme facilitates infection of a TMV-based DNA vector in tobacco protoplasts."

2. ☒ English translations are provided for:

- A Partial English Translation and Discussion of the Relevance are provided for: Annual Report, No. 9, 2000; Annual Report, No. 10, 2001; Annual Report, No. 11, 2002; Lecture Summary, The 289th Annual Meeting of the Molecular Biology Society of Japan; Lecture Summary, The 22nd Symposium of Japanese Society for Plant Cell and Molecular Biology.
- A Complete English Translation is provided for: Japanese Office Action for Japanese patent application nos. 2003-350091 and 2004-056912.

3. ☐ Other:

C. ☐ The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. ☐ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does(do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.

Filing Date

Art Unit

V. THIS IDS IS BEING FILED UNDER

A. ☒ 37 C.F.R. § 1.97(b): (check only one box)

1. ☐ within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.

2. ☐ within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.

3. ☒ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

4. ☐ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. ☐ 37 C.F.R. § 1.97(c): (check only one box)

☐ before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. ☐ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. ☐ See the certification below. No fee is required.

C. ☐ 37 C.F.R. § 1.97(d):

☐ after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. ☐ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

- A. ☐ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. § 1.704(d) below in section VII, if applicable; or
- B. ☐ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).
- C. ☒ Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 C.F.R. § 1.704(d)

The undersigned hereby states that:

☐ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box)

A. ☒ No fee is believed to be due in light of the above-noted status or above-provided certification.

B. ☐ A check in the amount of \$180.00 is enclosed for the above-identified fee.

C. ☐ Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. §§ 1.16 or 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

HARNESS, DICKY, & PIERCE, P.L.C.

By 
Donald J. Daley, Reg. No. 34,313

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Reston, Virginia 20195
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DJD/amp

Enclosures: ☒ Form PTO-1449(s) (1 sheet(s))
☒ Documents
☒ Foreign Search Reports (Two)

FORM HDP-1449 (Based on Form PTO-1449)

PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

Sheet 1 of 2

ATTORNEY DOCKET NO.

SERIAL NO.

12480-000176/US

10/574,112

APPLICANT

Masashi MORI et al.

FILING DATE

GROUP

March 31, 2006

Unknown

U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date

FOREIGN PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's Initials	
		Annual Report, No. 9, 2000, Laboratory of Plant Molecular Genetics, Research Institute of Agricultural Resources, Ishikawa Agricultural College, October 25, 2001, pp. 16-18
		Annual Report, No. 10, 2001, Laboratory of Plant Molecular genetics, Research Institute of Agricultural Resources, Ishikawa Agricultural College, September 25, 2002, pp. 13-16
		Annual Report, No. 11, 2002, Laboratory of Plant Molecular Genetics, Research Institute of Agricultural Resources, Ishikawa Agricultural College, December 26, 2003, pp. 13-15
		Lecture Summary, The 28 th Annual Meeting of the Molecular Biology Society of Japan, November 25, 2005
		Lecture Summary, The 22 nd Symposium of Japanese Society for Plant Cell and Molecular Biology, Akita University, August 8, 2004
		"Characterization of a human glycoprotein (erythropoietin) produced in cultured tobacco cells", S. MATSUMOTO et al., Plant Molecular Biology 27, 1995, pp. 1163-1172, © 1995 Kluwer Academic Publishers
		"Making an ally from an enemy: plant virology and the new agriculture", Gregory P. POGUE et al., Annu. Rev. Phytopathol. 2002, pp. 45-74, © 2002 by Annual Reviews
		"Transgenic plants as factories for biopharmaceuticals", G. GIDDINGS et al., Nature Biotechnology, Vol. 18, November, 2000, pp. 1151-1155, © 2000 Nature America, Inc.
		"Production of enkephalin in tobacco protoplasts using tobacco mosaic virus RNA vector", N. TAKAMATSU et al., FEBS LETTERS, August, 1990, Vol. 269, number 1, pp. 73-76, © 1990 Federation of European Biochemical Societies
		"Auto-cleavable ribozyme sequence attached to brome mosaic virus cDNAs enhances accumulation of viral RNAs transcribed in vivo from the cDNAs", Masanori KAIDO et al., Phytopathological Note, Ann. Phytopathol. Soc. Jpn. 63 (2), April 1997, pp. 95-98
		"Transfection of whole plants from wounds inoculated with Agrobacterium tumefaciens containing cDNA of tobacco mosaic virus", T.H. TURPEN et al., Journal of Virological Methods 42 (1993), pp. 227-239

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM HDP-1449 (Based on Form PTO-1449) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 2 of 1	ATTORNEY DOCKET NO.	SERIAL No.
	APPLICANT	
	FILING DATE	GROUP

		"Tobamoviral Movement protein transiently expressed in a single epidermal cell functions beyond multiple plasmodesmata and spreads multicellularly in an infection-coupled manner", Atsushi TAMAI et al., Molecular Plant-Microbe Interactions, Vol. 14, No. 2, 2001, pp. 126-134, © 2001 The American Phytopathological Society
		"Glucocorticoid-inducible expression of a bacterial avirulence gene in transgenic Arabidopsis induces hypersensitive cell death", T.W. MCNELLIS et al., The Plant Journal (1998) 14(2), 247-257, © 1998 Blackwell Science Ltd.
		"An estrogen receptor-based transactivator XVE mediates highly inducible gene expression in transgenic plants", J. ZUO et al., The Plant Journal (2000) 24(2), 265-273, © 2000 Blackwell Science Ltd.
		"Ecdysone agonist inducible transcription in transgenic tobacco plants", A. MARTINEZ et al., The Plant Journal (1999) 19(1), pp. 97-106, © 1999 Blackwell Science Ltd.
		"Tobacco BY-2 Cell Line as the 'HeLa' Cell in the Cell Biology of Higher Plants", T. NAGATA et al., International Review of Cytology (1992), vol. 132, pp. 1-30
		"A glucocorticoid-inducible transcription system causes severe growth defects in Arabidopsis and induces defense-related genes", H. KANG et al., The Plant Journal (1999) 20(1), pp. 127-133, © 1999 Blackwell Science Ltd.
		Japanese Office Action mailed January 25, 2005 by the Japanese Patent Office for the corresponding Japanese patent application No. 2003-350091
		Japanese Office Action mailed January 25, 2005 by the Japanese Patent Office for the Japanese corresponding patent application No. 2004-056912
		"A specific cis-hairpin ribozyme facilitates infection of a TMV-based DNA vector in tobacco protoplasts", L. WU et al., Journal of Virological Methods 111 (2003), pp. 101-109, © 2003 Elsevier B.V.

Examiner:	Date Considered:
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EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.